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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,680	10/15/2003	Shih-Fu Lee	SEA/3369	7045
36521	7590	07/21/2005		
MOSER, PATTERSON & SHERIDAN LLP/ SEAGATE TECHNOLOGY LLC 595 SHREWSBURY AVENUE SUITE 100 SHREWSBURY, NJ 07702			EXAMINER WHITTINGTON, KENNETH	
			ART UNIT	PAPER NUMBER
			2862	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/685,680

Applicant(s)

LEE ET AL.

Examiner

Kenneth J. Whittington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 14, 15, 17-21, 23 and 24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 16 is/are allowed.
- 6) ☒ Claim(s) 22 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
Bot Ledyne  
Primary Examiner

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/5/05 6/6/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

The Amendment filed June 6, 2005 has been entered and considered. In view thereof, the objections to the specification and the information disclosure statement and the rejections under 35 USC 112 have been withdrawn.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (US 2002/0048112) in view of Richter (US 2002/0063559). Regarding claim 22, Chu et al. discloses a method to determine defects on a magnetic printed disk comprising:

placing the disc onto a disc reading assembly (See Chu et al. FIGS. 1 and 2),

taking readings and identifying servo bursts on the magnetic medium, which occur at particular polar coordinates (See Chu et al. paragraphs 0039 and 0040, it is noted that every servo burst has a specific track radius and location on track, thus, has a specific polar coordinate),

generating a signal representative of the identified servo bursts (Chu et al. See same paragraphs, note identified signal

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bits A, B, C, D representative of the pattern of the servo sector or burst),

comparing the map of the identified servo bursts to expected servo bursts to identify missing servo bursts (See Chu et al. paragraph 0048, note that a missing servo burst is a defect measured outside the predetermined amount delta, thus Chu et al. would find missing servo bursts which would have a zero reading).

However, Chu et al. does not teach processing using a spectrum analyzer. Richter teaches a method for measuring a signal from a magnetic storage medium comprising a disk and a magnetic reading head (See Richter FIG. 1, items 12 and 11), and processing the analog signal using a spectrum analyzer. (See paragraph 0025). It would have been obvious at the time the invention was made to use such a spectrum analyzer operating in the zero span mode to process the signals measured in Chu et al. One having ordinary skill in the art would have been motivated to do so to read the tracks or sections can be read quickly without deteriorating the measurement quality (see same paragraph).

Regarding claim 25, Chu et al. teaches generating a list (or map) of anticipated servo bursts (See Chu et al. paragraph 0042, note that the reference value is a function of burst

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values for a representative sample of sectors, such sample can be one sector, more than one sector, or different sectors on different tracks. Note further that map or list {list not defined in the specification} as defined by the Disclosure in paragraph 0057 is a table or other stored values that correlate a location and signal value. Thus, a signal representative of the servo burst is interpreted as a map or list),

generating a list (or map) of the identified servo bursts (Chu et al. See same paragraphs, note identified bits A, B, C, D form signal representative of a pattern for the sector or burst),

comparing the list of the identified servo bursts to the generated list to identify missing servo bursts (See Chu et al. paragraph 0048, note that a missing servo burst is a defect measured outside the predetermined amount delta. Thus Chu et al. would find missing servo bursts which would have a zero reading, i.e., outside the predetermined amount).

#### ***Allowable Subject Matter***

Claims 1-13 and 16 are allowed.

The following is an examiner's statement of reasons for allowance: regarding claim 1, while the prior art teaches comparing a map of identified servo burst patterns with a map of

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anticipated burst patterns to determine defective servo bursts, the prior art does not disclose identifying the location of the missing servo bursts on the basis of such comparison, in conjunction with the other features of the claim. Claims 2-13 and 16, based on their dependency to claim 1, are allowable for the same reasons outlined thereto.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Response to Arguments***

Applicant's arguments with regard to claims 1-13 and 16 are persuasive in relation to the identification of the location of the missing servo pattern. Accordingly, the rejections of these claims have been withdrawn.

With regard to claims 22 and 25, the arguments are not persuasive. It is noted that the combination of Chu et al. in view of Richter as outlined above does teach the features recited in claims 22 and 25.

It is noted that many arguments proposed by Applicant, i.e., are based on amended claim 1, which is now allowable, so these arguments are deemed moot.

The primary argument thus proposed by Applicant in regard to claims 22 and 25 as distinguishing the claims from Chu et al. is that Chu et al. does not show or describe comparing a list (or map) of identified servo burst patterns with a map (or list) of anticipated servo bursts. As defined in the current specification, a map or list as defined by the Disclosure in paragraph 0057 is a table or other stored values that correlate a location and signal value.

Chu et al. teaches determining defects in a servo sector by comparing some measure of the magnitude of burst signals of the sector servo bits (See Chu et al. paragraph 0039). The signal from these servo bits would form a pattern for the servo burst. Since the sector has such a location and signal value, it constitutes a map or list for the servo burst according to the definition in the present specification. Chu et al. then generates a reference signal representative of the location and signal from several sectors (See Chu et al. paragraph 0042). Since the reference signal correlates a location and signal value, it is also a map or list.

Then Chu et al. teaches comparing the map or list of identified sectors with the map or list of anticipated sectors to determine if the sectors are defective (See Chu et al. paragraph 0048). The process can be repeated for each sector, track or disk (See Chu et al. paragraphs 0037-0049). When the particular map falls outside a parameter, it is defective. If the servo pattern is sufficiently defective, such as missing, it would have no signal and accordingly would also fall outside the parameter, and would be identified as such.

In view thereof, Chu et al. teaches the process as outlined in claims 22 and 25. Further the combination of Chu et al. in view of Richter teaches the features and process of these claims.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will



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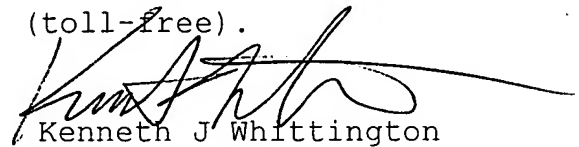
expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth J. Whittington whose telephone number is (571) 272-2264. The examiner can normally be reached on Monday-Friday, 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth J. Whittington  
Examiner  
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kjw